

antecedent basis. With all respect to the Examiner, this rejection is traversed. The Examiner's attention is directed to line 3 of the originally filed claim 1 for a proper antecedent basis. Accordingly, withdrawal of the 35 USC §112, second paragraph rejection of claim 1 is respectfully requested.

The Office action rejects claims 1-5 under 35 USC §102(b) over Hiroki et al. (JP 01186540). With all respect to the Examiner, the 35 USC §102(b) rejections of claims 1-5 are traversed. The Examiner's attention is directed to the attached "Abstract" of Hiroki et al. According to that Abstract, the purpose of Hiroki et al. is: "To remove the unnecessary portion of the magnetic field adversely affecting on the focusing and concentration of a beam by constituting part or all of electrode of an electron gun with a superconducting material." Based on that purpose, and on the fact that Figure 4 of Hiroki et al. does not show element 30 passing through element 4, element 30 is not understood as a slit.

Supporting the understanding that element 30 is not a slit is the description of element 30 provided in Figure 4. That description shows the Japanese character Ka, which means eddy-whirlpool-vortex, followed by the Japanese characters Den and Ryu, which together mean electric current. Reference the Nelson attachment, which provides copies of Japanese characters taken from "Nelson, The Modern Reader's Japanese-English Character Dictionary." Thus, element 30 is understood as eddy current(s).

Therefore, claims 1-5 clearly distinguish over Hiroki et al. in that the cited reference does not teach or suggest a slit as recited in those claims. Accordingly, withdrawal of the 35 USC 102(b) rejections of claims 1-5 is respectfully requested.

The Office action rejects claim 7 under 35 USC §103(a) over Hiroki et al. However, since claim 7 is a dependent claim of allowable base claim 1, claim 7 is patentable over Hiroki et al. Accordingly, withdrawal of the 35 USC §103(a) rejection of claim 7 is respectfully requested.

The Office action rejects claim 7 under 35 USC §103(a) over Kazuaki (JP 61029046). With all respect to the Examiner, that rejection is respectfully traversed. Kazuaki does not teach or suggest orienting slits relative to a magnetic field as recited in claim 1, from

which claim 7 depends. Accordingly, withdrawal of the 35 USC §103(a) rejection of claim 7 is respectfully requested.


In view of the foregoing, the Applicants believe that the subject application is in condition for allowance. Applicants request the Examiner to reconsider and reexamine the subject application. An early, favorable action is respectfully solicited.

If the Examiner deems that a telephone call would further the prosecution of this application, the Examiner is invited to call the Mr. Eric Bram at (914) 333-9635. All correspondence should continue to be sent to the address of record (not to the signing attorney).

If these papers are not considered timely filed by the United States Patent and Trademark Office, or if any additional fees are required, please follow the instructions provided in a paper entitled "Authorization Pursuant to 37 CFR §1.136 (a)(3) and to Charge Deposit Account" that was filed concurrently with the subject application.

Dated: March 3, 2003

Respectfully submitted,

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Attachments: Version With Markings to Show Changes Made
Return Receipt Post Card
"Nelson attachment,
Abstract of Hiroki et al.
Amendment Transmittal Letter

Attachment**Version With Markings to Show Changes Made**

1. (Amended) A color cathode ray tube comprising a display screen, an electron gun for generating three electron beams, said electron beams being directed towards the display screen, and deflection means for generating a magnetic field in a first direction for deflecting the electron beams across the display screen, said electron gun comprising a centering cup having a first part provided with a central aperture and two outer apertures for passing the three electron beams, and a second part extending in the direction of the display screen for avoiding sparks, the centering cup being provided with slits for reducing the effects of eddy currents, [characterized in that] wherein the centering cup comprises a first bridge and a second bridge [creating] that form the slits between the first and second parts, wherein [such that] a first line drawn between a first end of the first bridge and a first end of the second bridge intersects a second line drawn between a second end of the first bridge and a second end of the second bridge, and the bisectrix of the intersecting lines is substantially parallel to the first direction.

2. (Amended) A color cathode ray tube as claimed in claim 1, [characterized in that] wherein the first part comprises a plate provided with the central aperture and the two outer apertures, and wherein the slits [being] are substantially parallel to the plate.

3. (Amended) A color cathode ray tube as claimed in claim 1, [characterized in that] wherein the lengths of the slits are at least 50% of the diameter of the centering cup.

4. (Amended) A color cathode ray tube as claimed in claim 1, [characterized in that] wherein the second part [comprises] forms a circular symmetric jacket.

5. (Amended) A color cathode ray tube as claimed in claim 1, [characterized in that] wherein the first and second parts [comprise] form respective circular symmetric jackets.

7. (Amended) A color cathode ray tube as claimed in claim 1, [characterized in that the] wherein each slit has a width of about 0.1 mm.

NELSON

SECOND REVISED EDITION

- ¹³ 養 *jiyō* nourishment
 養分 *jiyōbun* nutritious element, nutrient
 養物 *jiyōbutsu* nourishing food
 養劑 *jiyōzai* nutrient medicine (as vitamins)
 養過多 *jiyōkata* hypertrophy
 養灌腸 *jiyō kanchō* rectal feeding

湾 ²⁶²⁷ _{F1176} **灣** WAN gulf, bay, inlet.

- ² 入 *wannyū* inlet, gulf
³ 口 *wankō* bay entrance
⁴ 内 *wannai* inside the bay
⁵ 曲 *wankyoku* curve, crook, bend
⁷ 形 *wankei* bay formation
⁸ 屈 *wankutsu* curve, crook, bend
¹⁰ 流 *Wannyū* Gulf Stream
¹² 奥 *wan-ō* bay bottom
¹³ 頭 *wantō* head of a bay

湖 ²⁶²⁸ _{F1141} **湖** KO *mizu-umi* lake.

- ³ 上 *kojō* on the lake
⁴ 心 *koshin* center of a lake
⁵ 水 *kosui* lake
⁶ 辺 *kohen* the vicinity of a lake
⁸ 底 *kotei* lake bottom
⁹ 岸 *kogan* lake shore
¹⁰ 沼 *koshō* lakes and marshes
¹¹ 学 *koshōgaku* limnology
¹² 面 *komen* lake surface
¹³ 風 *kofū* lake breeze
¹⁴ 畔 *kohan* lake shore, lakeside
¹⁵ 港 *kokō* lake harbor

渦 ²⁶²⁹ _{F1135} **渦** KA. *uzumaki*, *uzu* eddy, whirlpool, vortex.

- ⁴ 中 *kachū* in the whirlpool
⁷ 状星雲 *kajō seion* spiral nebula
⁸ 状星雲説 *kajō seionsetsu* nebular hypothesis
⁹ 卷 *uzumaki* eddy, whirlpool, vortex; coil.
 uzuma(ku) eddy, whirl, swirl, curl (smoke)
¹⁰ 卷発条 *uzumaki hatsujō* coiled spring
¹¹ 流 *karyū* eddy, whirlpool, maelstrom
¹² 紋 *kamon* whirlpool design
¹³ 動 *kadō* vortex
¹⁴ 雲説 *ka-unsetsu* nebular hypothesis
¹⁵ 潮 *uzushio* whirling tides
¹⁶ 線 *uzusen* spiral line
¹⁷ 輪 *uzurwa* whirlpool form

港 ²⁶³⁰ _{F1137} **港** **港** Kō *minato*, -kō port, harbor.

- ³ 口 *kōkō*, *minatoguchi* harbor entrance
⁴ 内 *kōnai* inside the harbor
⁵ 外 *kōgai* outside the harbor

- 市 *kōshi* port city
 図 *kōzu* harbor map
 町 *minatomachi* harbor town
 門 *kōmon* harbor entrance
¹⁰ 都 *kōto* port city
¹¹ 務 *kōmu* harbor service
 務部 *kōmubu* harbor office
 務部長 *kōmu buchō* harbormaster
¹² 税 *kōzei* harbor dues
 湾 *kōwan* harbors
 湾労働者 *kōwan rōdōsha* longshoreman
¹³ 頭 *kōtō* waterfront

湿 ²⁶³¹ _{F1189} **濕** SHITSU dampness, moisture; itch. *shime(ru)* get damp, get moist, get wet. *shime(su)*, *shime(rasu)* wet, moisten, dampen. *shito(ru)* get damp, become moist. *shime(ppoi)* damp, moist, humid, wet; gloomy, depressing. *shime(ri)* dampness, humidity, moisture; a sprinkle. *shime(yakana)* quiet, gentle; gloomy, dismal.

- ⁶ 田 *shitsuden* rice fields that always have standing water
 布 *shippu* compress, fomentation
⁷ 气 *shike(ru)*, *shikke(ru)* get damp, be moist, be wet. *shikke*, *shikki*, *shime(ri)ke* moisture, humidity, dampness. *shike* moisture
 地 *shitchi* swampy land, damp ground
⁷ 声 *shime(ri)goe* tearful voice
⁸ 板 *shitsuban* wet plate (photography)
 性 *shissei* wet (pleurisy)
 性肋膜炎 *shissei rokumakuen* wet pleurisy
⁹ 度 *shitsudo* humidity
¹⁰ 度計 *shitsudokei* hygrometer
¹¹ 疹 *shissin* eczema, rash
¹² 船渠 *shitsusenkyo*, *shitsudokku* wet dock
¹³ 量 *shitsuryō* wet weight
¹⁴ 潤 *shitsujun* moisture, humidity, dampness
 潤気候 *shitsujun kikō* humid climate
 潤空気 *shitsujun kūki* moist air, humid air
¹⁵ 霧 *shitsumu* wet fog

測 ²⁶³² _{F1136} **測** SOKU. *haka(ru)* (see under 計 4312.0).

- ⁶ 地 *sokuchi* land survey, geodetic survey
 地学 *sokuchigaku* geodesy
⁷ 知 *haka(ri)-shi(ru)*, *sokuchi suru* infer, understand, fathom, determine
 定 *sokutei* measurement, survey, sounding, calibration, determination, test
 定法 *sokuteihō* mensuration
⁸ 度 *sokudo* measurement
⁹ 音器 *sokuonki* sonometer
¹⁰ 候 *sokkō* meteorological observation

際 *unsai* edge of the clouds; distant sky
 影 *un-ei* cloud shape [showers
 雲 *ungei* clouds and a rainbow; sign of
 霞 *unka* clouds and haze. *kumo-kasumi*
 雲 *un-ei* cloud shade [tains] soar high
 登 *kumo (ni) sobie(ru)* (buildings or moun-
 簾 *kumo sudare* cloud screen (over the
 霧 *ummu* clouds and fog [moon)
 境 *unjō* clouds and earth; heaven and earth;
 great contrast

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電 ⁵⁰⁴⁷ HAKU. HOKU. *hyō* hail.
 F2028

害 *hyōgai* hail damage

零 ⁵⁰⁴⁸ REI zero, nothing, cipher; fall.
 F2028 *kobo(reru)* vi spill, overflow, be
 scattered. *kobo(su)* vt spill; grumble over.

下 *reika* below zero, subzero
 余 *reiyō* residue, remnant
 位 *rei-i* zero
 位線 *rei-isen* zero line
 幸 *kobo(re)zaiwa(i)* a godsend, a windfall
 度 *reido* zero, freezing point
 碎 *reisai* a tiny bit
 点 *reiten* zero; freezing point; zero grade
 時 *reiji* twelve o'clock; noon; midnight
 敗 *reihai* a shutout (in a game); losing out
 (in love)

細 *reisai na* petty, small, infinitesimal
 細農 *reisainō* poor peasant
 落 *ochibu(reru)* = 落魄 4003.15. *reiraku*
 ruin, downfall, reduced circumstances,
 戰 *reisen* zero fighter [withering

雷 ⁵⁰⁴⁹ RAI *ikazuchi* thunder. *kaminari*
 F2027 thunder; thunderbolt.

文 *raimon* zigzag
 火 *raika* lightning; fire caused by lightning
 公 *raikō* the god of thunder
 同 *raidō* blindly following the crowd
 光 *raikō* lightning
 名 *raimei* renown, fame; your famous name
 声 *raisei* noise of thunder
 雨 *raiu* thunderstorm
 神 *raijin* the god of thunder
 除 *raisho(ke)* lightning rod
 節 *raidō* rumble of thunder; roaring
 動 *raizetsu* snow thunderstorm
 雲 *raibun* thunderhead
 電 *raiden* thunder and lightning, thunder-
 鳴 *raimei* thunder [bolt
 酸 *raisan* fulminic acid

管 *raikan* percussion cap, detonator
 避 *kaminari-yō(ke)* lightning rod
 霆 *raitei* thunder
 擊 *raigeki* torpedo attack
 機 *raigekiki* torpedo-carrying plane
 親爺 *kaminari oyaji* snarling old man

電 ⁵⁰⁵⁰ DEN electricity. *inazuma* light-
 F2028 ning.

A 力 *denryoku* electric power
 力學 *denryokugaku* electrodynamics
 工 *denkō* electrician
 工長 *denkōchō* head electrician
 子 *denshi* electron
 子工學 *denshi kōgaku* electronics
 子學 *denshigaku* electronics [scope
 子顯微鏡 *denshi kimbikyō* electron micro-
 文 *dembun* telegram, telegraphic message

化 *denka* electrification
 火 *denka* electric spark
 火距離 *denka kyori* sparking distance
 火間隙 *denka kangeki* spark gap
 圧 *den-atsu* voltage
 池 *denchi* electric battery
 休日 *denkyūbi* no-electricity day
 光 *denkō* electric light; lightning
 光石火 *denkō-sekka* an instant, a flash
 光形 *denkōkei* zigzag
 灯 *dentō* electric light
 灯会社 *dentōgaisha* electric-light company
 灯料 *dentōryō* electric-light charges
 灯料金 *dentō ryōkin* electric-light charges
 灯線 *dentōsen* lamp cord
 氣 *denki* electricity; electric light
 氣力学 *denki rikigaku* electrodynamics
 氣工 *denkikō* electrician
 氣工學 *denki kōgaku* electrical engineering
 氣分析 *denki bunseki* electroanalysis
 氣分解 *denki bunkai* electrolysis; electro-
 analysis

氣字機 *denki shajiki* teletype
 氣廣告 *denki kōkoku* electric sign
 氣灯 *denkitō* electric light
 氣死刑 *denki shikei* electrocution
 氣会社 *denkigaisha* electric company
 氣技師 *denki gishi* electrical engineer
 氣店 *denkiten* electric shop
 氣板 *denkiban* electrotype
 氣炉 *denkiro* electric furnace; electric oven
 氣學 *denkigaku* science of electricity
 氣抵抗 *denki teikō* electrical resistance
 氣始動機 *denki shidōki* electric starter
 氣炬燵 *denkigotatsu* electric foot warmer
 氣係 *denkigakari* electrician
 氣剃刀 *denki kamisori* electric razor
 氣通信 *denki tsūshin* telecommunication

8 金長門阜 康佳 [雨] 青非

AL: 500
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8

金
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非

氣浴 *denkiyoku* electric bath
 氣料 *denkiyō* charge for electricity
 氣料金 *denki ryōkin* charge for electricity
 氣時計 *denkidokei* electric clock
 氣量 *denkiyō* amount of electricity
 氣椅子 *denki isu* electric chair
 氣蒲団 *denkibuton* electric blanket
 氣照明 *denki shōmei* electric lighting
 氣暖房 *denki dambō* electric heating
 氣暖房法 *denki dambōhō* electric heating
 氣銅 *denkidō* electrolytic copper
 氣磁石 *denki jishaku* electromagnet
 氣熔接 *denki yōsetsu* electric welding
 氣器具 *denki kigu* electrical appliances
 氣鋼 *denkikō* electric steel
 氣鍍金 *denki mekki* electroplating, gal-
 氣療法 *denki ryōhō* electrotherapy
 氣竈 *denki kamado* electric range
 氣鰻 *denki unagi* electric eel
 位 *den-i* electric potential [electric train
 車 *densha* electric car, streetcar, tramcar,
 車通 *denshadō(ri)* streetcar line
 車賃 *denshachin* carfare
 弧 *denko* electric arc
 命 *denmei* telegraphic instructions
 送 *densō* electrical facsimile transmission
 送写真 *densō shashin* phototelegraph
 波 *dempa* electric wave, radio wave
 波妨害 *dempa bōgai* jamming
 波波長 *dempa hachō* wave length
 波計 *dempakei* wave meter
 波料 *demparyō* air-time charge
 波探知機 *dempa tanchiki* radar
 柱 *denchū* telephone pole [cablegram
 信 *denshin* telegraph, telegram, wire, cable,
 信印字機 *denshin injiki* teletype
 信柱 *denshimbashira* telegraph pole
 信為替 *denshingawase* telegraphic transfer
 信料 *denshinryō* telegram charge
 信術 *denshinjutsu* telegraphy
 信線 *denshinsen* telegraph line
 信機 *denshinki* telegraph instrument
 源 *dengen* source of electricity
 閃 *densen* electric lightning flash
 荷 *denka* electric charge
 訓令 *denkunrei* telegraphic instructions
 流 *denryū* electric current
 流計 *denryūkei* galvanometer, ammeter
 流転換器 *denryū tenkanki* commutator
 探 *dentan* radar
 液 *den-eki* electrolyte
 球 *denkyū* electric-light bulb
 瓶 *dembin* battery jar
 動力 *dendōryoku* electromotive power
 動機 *dendōki* electric motor
 場 *denjō* electric field

極 *denkyoku* electrode, pole, terminal
 量 *denryō* amount of electricity
 報 *dempō* telegram
 報用紙 *dempō yōshi* telegram blank
 報為替 *dempōgawase* telegraphic transfer
 報料 *dempōryō* telegram charge
 報略号 *dempō ryakugō* telegraphic address
 報略号帳 *dempō angōchō* telegraphic code
 報領信紙 *dempō raishinshi* telegram blank
 源 *dengen* source of electricity
 路 *denro* electric circuit
 鉄 *dentetsu* electric railway
 鈴 *denrei* electric bell
 飾 *denshoku* illumination; electric decora-
 著 *denchiku* electric phonograph [tions
 解 *denkai* electrolysis
 解液 *denkai eki* electrolyte
 解質 *denkaishitsu* electrolyte
 話 *denwa* telephone
 話口 *denwaguchi* mouthpiece; telephone
 話加入者 *denwa kanyūsha* telephone sub-
 scriber [ator
 話交換手 *denwa kōkanshu* telephone oper-
 話交換局 *denwa kōkankyoku* telephone
 central, telephone exchange
 話料 *demwaryō* telephone charges
 話帳 *demwachō* telephone directory
 話術 *denwajutsu* telephony
 話管 *denwakan* speaking tube, mouthpiece
 話機 *denwaki* telephone instrument
 髮 *dempatsu* permanent wave
 磁石 *denjishaku* electromagnet
 磁氣 *denjiki* electromagnetism
 磁波 *denjiha* electromagnetic waves
 磁鉄 *denjitetsu* electromagnet
 鋳 *denchū* electrotyping
 擊 *dengeki* electric shock
 擊作戰 *dengeki sakusen* blitzkrieg
 熱 *dennetsu* electric heat
 熱器 *dennetsuki* electric heater
 線 *densen* electric wire, electric line, tele-
 graph wire, telephone wire, electric cord,
 線布設 *densen fusetsu* cable laying [cable
 線病 *densembyō* runner, run (in a stocking)
 機 *denki* electrical machinery and appliances
 機子 *denkishi* armature
 鍵 *denken* telegraph key
 離 *denri* electrolysis, ionization
 電 *denran* electric cable

6

電

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Nonstandard for

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Ju request; need.

世絵 *ukiyo-e* genre picture, ukiyo-e
 世絵派 *ukiyo-eha* the ukiyo-e school
 世絵師 *ukiyo-eshi* an ukiyo-e artist
 舟 *u(ki)bune* pontoon [affair]
 名 *u(ki)na* romance, scandal, rumor, love
 灯台 *u(ki) tōdai* lightship [tonness]
 氣 *u(wa)ki* inconstancy, faithless love, wan-
 氣分 *u(kare) kibun* sportive spirit, mirth,
 gaiety [tious person]
 氣者 *u(wa)kimono* inconstant lover, licen-
 言 *fugen* wild rumor, unfounded report
 身 *u(ki)mi* floating on one's back
 体 *futai* floating body
 沈 *fuchin*, *u(ki)shizu(mi)* rise and fall, ebb
 and flow, ups and downs, vicissitudes
 男 *u(kare) otoko* dissolute man
 足 *u(ki)ashi* wavering
 足立 *u(ki)ashita(tte)* ready to run away
 足場 *u(ki)ashiba* floating work platform
 沼 *u(ki)numa*, *u(ki)nu* muddy swamp
 歩 *u(kare)-aru(ku)* gad around. *u(ki)ayu(mi)*
 walking lightly, tiptoeing
 具 *u(ki)gu* water wings
 垢 *u(ki)aka* scum [battleship]
 城 *fujō*, *u(ki)shiro* floating castle, giant
 洲 *u(ki)su* floating grass plot (in a muddy
 lake) [precarious business]
 草 *u(ki)kusa* floating weed, duckweed;
 根 *u(ki)ne* roots of water plants
 浮 *u(ki)u(ki)* to buoyantly, cheerfully, jaun-
 秤 *u(ki)bakari* hydrometer [tily]
 脂 *u(ki) abura* floating oil
 鳥 *u(kare)garasu* crow crying by moonlight
 島 *u(ki) shima* floating island
 荷 *u(ki)ni* flotsam, flotage
 華 *fuka* display, ostentation, vanity, frivolity
 起重機 *u(ki) kijūki* floating crane
 流 *furyū* floating, drifting
 流水雷 *furyū suirai* floating mine
 流機雷 *furyū kirai* floating mine, drifting
 浪 *furō* vagrancy, wandering [mine]
 浪人 *furōnin* a vagrant
 浪児 *furōji* juvenile vagrant, waif
 浪者 *furōsha* hobo, tramp, vagabond
 魚 *u(ki)uo* surface fish
 彫 *ukibori* relief, embossed carving
 洋 *u(ki) kusa* floating plants
 袋 *u(ki)bukuro* air bladder; water wings, life
 preserver, float, tire
 巢 *u(ki)su* floating nest
 船渠 *u(ki)dokku* floating dock
 遊 *fuyū* floating, suspension
 遊生物 *fuyū seibutsu* plankton [unsettled]
 動 *fudō suru* float; be wafted; fluctuate; be
 動人口 *fudō jinkō* floating population
 揚 *fuyū* floating, flotage, flotation

渣 *u(ki)kasu* scum
 游 *fuyū* floating, suspension
 葉 *fuyō*, *u(ki)ha* floating leaf
 雲 *fu-un*, *u(ki)gumo* floating cloud; some-
 貸 *u(ki)ga(shi)* illegal loan [thing unsettled]
 棧橋 *u(ki)sambashi* floating pier [ing]
 腰腫 *u(ki)goshi* no wavering, unsteady, falter-
 腫 *muku(mu)* swell, bloat. *fushu*, *mukumi*
 edema, dropsy [sleeping adulterously]
 寝 *u(ki)ne* sleeping in a ship; uneasy sleep;
 漂 *fuyō* floating, flotage
 說 *fusetsu* wild rumor, speculation
 塵子 *unka* leaf hopper, a rice insect
 標 *fuyō* buoy
 潮輪 *u(ki)shio* tidal current
 輪 *u(ki)wa* buoyant water ring [bridge]
 橋 *fukyō*, *u(ki)hashi* floating bridge, pontoon
 錨 *fubyō* floating anchor, drift anchor
 薄 *fuhaku* frivolity, levity
 織 *u(ke)ori*, *u(ki)ori* weaving with raised
 figures; brocade [party]
 騒 *u(kare)sawa(gi)* merrymaking; noisy
 瀬 *u(kabu)se* chances in life
 囊 *u(ki)bukuro* = 浮袋 (see above-11)

流 ⁵⁷⁶ Ru. Ryū current; counter for
 F103 flags. *naga(reru)* flow, trickle,
 ooze, drain, run down; be washed away;
 float, drift; wander; be forfeited, be fore-
 closed; lapse; incline to; be swayed by;
 (years) pass. *naga(su)* dash, pour, sluice, let
 run out, flush; float, set adrift; spill; shed
 (tears); wash away, wash off; forfeit, fore-
 close; exile; cruise (taxi). *naga(re)* flow,
 stream, waters, current; passage (of time),
 descent; school; abandonment; foreclosure;
 tendency. *naga(shi)* sink; bath-attendant
 service; cruising (taxi); strolling musician.
 (o)*naga(re)* suspension, adjournment, calling
 off. -ryū style, fashion, type, form, manner;
 school, system; class, order, rate, rank,
 grade.

人 *runin* exile
 入 *ryūnyū suru*, *naga(re)-i(ru)* flow into
 川 *naga(re)gawa* running stream
 下 *naga(re)-kuda(ru)* flow down; drink
 down; descend
 亡 *ryūbō* having no settled abode
 丸 *naga(re)dama* stray bullet
 木 *ryūboku*, *naga(re)gi* driftwood
 水 *naga(re) mizu*, *ryūsui* running water
 元 *naga(shi)moto* kitchen sink and work area
 込 *naga(re)-ko(mu)* flow into, run into; drift
 into. *naga(shi)-ko(mu)* wash down; pour
 into
 込担保 *naga(re)ko(mi) tampo* foreclosure

心
 小
 戈
 戸
 手
 支
 支
 父
 文
 斗
 斤
 方
 无
 日
 月
 木
 欠
 止
 万
 受
 母
 比
 毛
 氏
 气
 水
 水
 火
 爪
 爪
 父
 交
 月
 牙
 牛
 犬
 牙

ELECTRON GUN

Patent Number: JP1186540
Publication date: 1989-07-26
Inventor(s): SANO HIROKI; others: 02
Applicant(s): HITACHI LTD
Requested Patent: ☐ JP1186540
Application Number: JP19880003727 19880113
Priority Number(s):
IPC Classification: H01J29/50; H01J29/51
EC Classification:
Equivalents:

Abstract

PURPOSE: To remove the unnecessary portion of the magnetic field adversely affecting on the focusing and concentration of a beam by constituting part or all of electrodes of an electron gun with a superconducting material.

CONSTITUTION: A deflecting yoke 6 to deflect an electron beam is installed around a funnel section 8 and forms the deflecting magnetic field 7. A thin film 11 made of a superconducting material is coated or deposited on the inner wall of a neck section so as to surround an electron gun, members 12 made of the superconducting material are fitted to the inner wall of a seal cup 4. These superconducting members 12 are fitted on lines passing nearly the centers between respective beam passing holes in the direction nearly perpendicular to a line connecting a center beam passing hole 15b and side beam passing holes 15a and 15c and the passing direction of the beam. Part of the deflecting magnetic field 7 formed by the deflecting yoke 6 can be prevented from infiltrating into a focusing electrode 3 or an accelerating electrode 4 by the superconducting members 12, and the Lorentz force by the deflecting magnetic field can be prevented from adversely affecting the beam shape during the focusing and acceleration of the beam.

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